

STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

3100 Port of Benton Blvd • Richland, WA 99354 • (509) 372-7950

October 11, 2007

Ms. Shirley J. Olinger, Acting Manager Office of River Protection United States Department of Energy P.O. Box 450, MSIN: H6-60 Richland, Washington 99352

Mr. William S. Elkins, Project Director Bechtel National, Inc. 2435 Stevens Center Place, MSIN: H4-02 Richland, Washington 99354

Re: Submittal of Hanford Facility RCRA Permit Modification Notification Form 24590-LAW-PCN-ENV-07-004; Class ¹1 Modification to the Hanford Facility Dangerous Waste and Resource Conservation and Recovery Act (RCRA) Permit for the Treatment, Storage, and Disposal of Dangerous Waste, Part III, Operating Unit 10 (Waste Treatment and Immobilization Plant), WA7890008967

Dear Ms. Olinger and Mr. Elkins:

The Department of Ecology approves the referenced Class ¹1 Modification submitted September 25, 2007. The approved Hanford Facility RCRA Permit Modification Notification Form is enclosed.

Modification 24590-LAW-PCN-ENV-07-004 provides the following updated Piping and Instrumentation Diagrams for the Low Activity Waste Secondary Offgas/Vessel Vent Process System:

- 24590-LAW-M6-LVP-P0001, Revision 1.
- 24590-LAW-M6-LVP-P0002, Revision 3.
- 24590-LAW-M6-LVP-P0003, Revision 1.
- 24590-LAW-M6-LVP-P0004, Revision 1.
- 24590-LAW-M6-LVP-P0005, Revision 1.



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The parties agree that during the transition period from permit drawings to engineering source drawings, items not requiring an installation inspection or inclusion in the Independent Qualified Registered Professional Engineer report may be shown in phantom. Ecology is approving the design changes identified in the Permittees' submittal. However, decisions regarding the regulation of items shown in phantom will be made at a later date. At the end of the transition period, permit submittals will contain engineering source documents and will be incorporated into the permit as described in Ecology Publication # 07-05-006 (www.ecy.wa.gov/biblio/nwp.html).

If there are any questions, contact me at 509-372-7882 or Tracy Gao at 509-372-7901.

Sincerely,

Brenda Becker-Khaleel WTP Permit Writer

Brinds Dech Miles

Nuclear Waste Program

aah/jc Enclosure

cc electronic w/enc:

John Eschenberg, USDOE
Lori Huffman, USDOE
Tony McKarns, USDOE
Gae Neath, USDOE
Don Sommer, USDOE
William Taylor, USDOE
Brad Erlandson, BNI
Peggy Fisher, BNI
Stan Hill, BNI
Dennis Klein, BNI
Sandi Murdock, BN
Suzette Thompson, FHI
Phil Peistrup, WGI

cc w/enc:

Administrative Record: Tank Waste Treatment Requirements

Environmental Portal

USDOE-ORP Correspondence Control

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Hanford Facility RCRA Permit Modification Notification Form Part III, Operating Unit 10

Waste Treatment and Immobilization Plant

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Page 2 of 4:

Hanford Facility RCRA Permit, Part III, Operating Unit 10, Waste Treatment and Immobilization Plant

Update LAW Vitrification Building Piping and Instrumentation Diagrams (P&ID) for the LAW Secondary Offgas/Vessel Vent Process System (24590-LAW-M6-LVP-P0001 through P0005), in Appendix 9.2 of the

Dangerous Waste Permit.

Submitted by Co-Operator:

V V Ioin

Reviewed by ORP Program Office:

Date

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Hanford Facility RCRA Permit Modification Notification Form				
. Unit:	Permit Part & Chapter: Part III, Operating Unit 10			
Waste Treatment and Immobilization Plant				

Description of Modification:

The purpose of this Class 1 prime modification is to update the Piping and Instrumentation Diagrams (P&IDs) for the LAW Secondary Offgas/Vessel Vent Process System (24590-LAW-M6-LVP-P0001 through P0005). The following permit P&IDs are submitted to replace those currently in Appendix 9.2.

Appendix.	9.2		
Replace:	24590-LAW-M6-LVP-P0001, Rev. 0	With:	24590-LAW-M6-LVP-P0001, Rev. 1
	24590-LAW-M6-LVP-P0002, Rev. 2		24590-LAW-M6-LVP-P0002, Rev. 3
	24590-LAW-M6-LVP-P0003, Rev. 0		24590-LAW-M6-LVP-P0003, Rev. 1
	24590-LAW-M6-LVP-P0004, Rev. 0		24590-LAW-M6-LVP-P0004, Rev. 1
	24590-LAW-M6-LVP-P0005, Rev. 0		24590-LAW-M6-LVP-P0005, Rev. 1

The referenced P&IDs are complete revisions. They incorporate changes provided in applicable document change forms (e.g., DCN, SCN, SDDR, FCN, FCR, etc.) and changes associated with the resolution to comments on change documents since the issuance of the last revision of the permitted drawing. This modification requests Ecology approval and incorporation into the permit. Revisions are the result of ongoing design changes. The following identifies the significant types of changes on the attached drawings.

24590-LAW-M6-LVP-P0001, Rev. 1

Specific changes to this P&ID are provided on note 26.

- Incorporated updates to design from major revision of source drawing (Revision 0 to Revision 1)
- Added instrumentation detail to heaters
- Re-routed piping from vessel vent header
- Updated instrumentation symbols
- Deleted drain lines from HEPA housings
- · Added silencers and flex hoses at exhausters
- Moved slope notation to specific lines
- Revised and added new notes
- Changed pipe class to S11N on lines LVP-PW-00069, LVP-PW-00068, LVP-PW-00067
- Added various quality and ITS identifiers

24590-LAW-M6-LVP-P0002, Rev. 3

Specific changes to this P&ID are provided on note 47.

- Incorporated updates to stack monitoring system, vendor design of caustic scrubber, and other design changes from the major revision of source drawing (Revision 2 to Revision 3)
- Updated instrumentation symbols
- Added isolation valves, pressure indication and scrubber drain line loop seal (coord. D6 & E6)
- Added flow indicators and purge lines for PDI-0094 and PDT-0094
- Revised stack instrumentation
- Moved stack instrumentation
- Added slope notation to specific lines
- Revised and added new notes and removed drawing holds

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- Revised nozzle configuration, attached pipe line and added nozzle sizes to LVP-SCB-00001 (coord. E6, F6, G6)
- · Added stack condensate removal piping and valves
- Revised tag numbers for LVP pumps from LVP-PMP-00001A/1B to LVP-PMP-00003A/3B
- Added various quality and ITS identifiers
- Reworded various off-sheet connector descriptions

24590-LAW-M6-LVP-P0003, Rev. 1

Specific changes to this P&ID are provided in note 12.

- Incorporated updates to design from major revision of source drawing (Revision 0 to Revision 1)
- Revised piping configuration
- Added vent lines and valves to line LVP-ZE-03352-S11B-01 at coord. D3
- Added slope notation to specific lines
- Revised and added new notes
- Revised reference associated with WDOH deviation request on vent header
- Divided existing line LVP-GV-00018-S11B-04 into three sections to reflect quality and seismic designation of embedded section of pipe (coord D8 & E8)
- Changed quality designator of drawing from CM to Q
- Added and deleted various quality, seismic, and ITS identifiers
- Revised various off-sheet connectors and connector descriptions

24590-LAW-M6-LVP-P0004, Rev. 1

Specific changes to this P&ID are provided in note 20.

- Incorporated updates to vendor design from major revision of source drawing (Revision 0 to Revision 1)
- Added instrumentation detail to vendor skid
- Updated and revised instrumentation symbols on carbon bed adsorber and bypass lines
- Added high point vent and associated valve
- Removed flow indicators on ISA purge tubing on carbon bed adsorber at coord. A3, A4, A7 and A8.
- Deleted valve in vendor package boundary to reflect vendor design of carbon bed adsorber offgas line (coord, F3)
- Revised and added new notes

24590-LAW-M6-LVP-P0005, Rev. 1

Specific changes to this P&iD are provided in note 25.

- Incorporated updates to design from major revision of source drawing (Revision 0 to Revision 1)
- Updated instrumentation detail to the LVP Skids 00002 and 00003
- BNI supply pipe spool and flange to mount inlet flow meter for SCR package
- Revised and added new notes
- Added various ITS identifiers

Per WAC 173-303-830(4)(d)(ii)(A), ... These changes do not substantially alter the permit conditions or reduce the capacity of the facility to protect human health or the environment.

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The following is a list of outstanding change document • 24590-LAW-M6N-LVP-00048 for source P&ID				nodification:
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4.0			· -	
WAC 173-303-830 Modification Class: 12	Class 1	Class 11	Class 2	Class 3
Please mark the Modification Class:	· · · · · · · · · · · · · · · · · · ·	X		<u> </u>
Enter Relevant WAC 173-303-830, Appendix I Modification of Enter wording of WAC 173-303-830, Appendix I Modification		N/A		
in accordance with WAC 173-303-830(4)(d)(i), this modification		requested to be	reviewed and a	approved as a
Class 11 modification. WAC 173-303-830(4)(d)(ii)(A) states,	"Class 1 modific	ations apply to n	ninor changes th	at keep the
permit current with routine changes to facility or its operation or reduce the capacity of the facility to protect human health	. These change	s do not substan	tially alter the po of Class 1 modit	ermit conditions
director may require prior approval."	of the changing	ont. In the case	or class i moun	noations, the
Modification Approved: Yes No (state rea	Reviewed by Ecology:			
Reason for denial:			11110	
		DABUK	flulel.	10/11/07
		B. Becker	-Khaleel	Date

¹ Class 1 modifications requiring prior Agency approval.

² If the proposed modification does not match any modification listed in WAC 173-303-830 Appendix I, then the proposed modification should automatically be given a Class 3 status. This status may be maintained by the Department of Ecology, or down graded to a Class '1, if applicable.